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conc. air data information as well as derived measured body-frame magnetic field vector components.

9. Method according to claim 7, characterised in that the filtering takes place with the aid of Kalman filters.

A3 12. Arrangement according to claim 10, characterised in that integration routine (8) integrates out the aircraft's attitude from the aircraft's body-frame angular rates (p, q and r) obtained from the aircraft's body-frame angular rate gyros.

A4 24. Arrangement according to claim 16, characterised in that the first filter (11) and/or the second filter (22) consists of a Kalman filter.

Claim Amendments

3. (Amended) Method according to claim 1 [and 2], characterised in that attitude is integrated out via information about the body-frame angular rates (p, q and r) obtained from the aircraft-fixed angular rate gyros of the aircraft.

8. (Amended) Method according to [claims 6 or 7] claim 6, characterised in that in a second filter (22) is performed estimation of attitude errors and heading errors that arise on integration of the aircraft's body-frame angular rates (p, q and r) obtained from the aircraft's body-frame angular rate gyros, where the estimation is done with the aid of attitude calculated from air data information as well as derived measured body-frame magnetic field vector components.

9. (Amended) Method according to [claims 7 or 8] claim 7, characterised in that the filtering takes place with the aid of Kalman filters.